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**REGISTERED TO PRACTICE BEFORE**  
**U.S. PATENT & TRADEMARK OFFICE**

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April 9, 2004

Serial Number: 10/646,174

Filed: August 21, 2003

Applicant: William S. Lerner

Title: Enhanced visibility heat alert safety device for hot surfaces

Group Art Unit: 3742

Information Disclosure Statement

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

Attached is a completed Form PTO-1449 and copies of the pertinent parts of the references cited thereon. Below are comments on these references pursuant to Rule 98:

U.S. Patent No. 6, 104,007 to Lerner discloses liquid crystal compositions designed to turn red at or above a specified temperature and that are shaped in the outline of word "HOT" and embedded on the top surface of the heating element of stoves or window surface of wall ovens and toaster ovens.

U.S. Patent No. 6,639,190 to Lerner discloses liquid crystal compositions designed to turn red or orange and remain red or orange at or above a specified temperature, such as 115 degrees Fahrenheit and are shaped in the outline of the word "HOT", and are embedded on the top surface of the heating element of stoves or window surface of wall ovens and toaster ovens so.

U.S. Patent No. 6,700,100 to Lerner discloses a hot-button type heat alert safety device attachable to a surface for warning individuals that the surface is hot, comprising a thermochromic composition, a button-shaped container for housing the composition, having a convex face, wherein the convex face overlying said composition and the container being transparent in at least a portion of the container overlying the thermochromic composition.

U.S. Patent No. 5,997,964 to Klima discloses a liquid crystal display and method of making, wherein the display includes a layer of support material stabilizing a layer of liquid crystal material in dimensional thickness and uniformity, wherein the invention is specifically directed for making heat-sensitive display labels.

U.S. Patent No. 5,499,597 to Kronberg discloses a reversible optical temperature indicator utilizes thermochromic semiconductors which vary in color in response to various

temperature levels, wherein the thermochromic material is enclosed in an enamel which provides protection and prevents breakdown at higher temperatures, wherein cadmium sulfide is the preferred semiconductor material, wherein the indicator may be utilized as a sign or in a striped arrangement.

U.S. Patent No. 3,822,594 to Parker discloses an electrothermal analog temperature indicating device having an electrical heating resistance element with means for electrical connection to a heating appliance, a liquid crystal composition thermally responsive to said heating appliance and means for insulating said device to provide a cooling response of said liquid crystal composition analogous to the cooling response of said heating appliance, when electrical energy is no longer being supplied to said heating element.

U.S. Patent No. 3,827,301 to Parker discloses an apparatus is provided for indicating the temperature of a surface or heat source by employing a single liquid crystal composition, which is at varying distances from surface.

U.S. Patent No. 5,441,344 to Cook discloses a measurement and display of the temperature of a cooking surface of a cooking utensil by a temperature sensor, such as thermocouple, in thermal contact either directly with cooking surface or through a clamp on the side of the cooking utensil.

U.S. Patent No. 5,144,112 to Wyatt et al. discloses a food service process including a hot food dish and an insulated dome, wherein hot food is served onto the dish, the dome set over the dish, and the dome covered hot food dish is delivered to the intended consumer, wherein a thermochromic member disposed in a heat conductive sleeve is mounted in the lift knob of the dome.

U.S. Patent No. 4,805,188 to Parker discloses a time-temperature indicator, particularly adapted for use with closed sterilizing or cooking vessels, such as cookers and sterilizers, to indicate at what temperature and for how long material contained within the vessel has been heating or cooking.

U.S. Patent No. 3,701,344 to Walls et al. discloses an improvement to a wireless cooking apparatus which is a knob having an indicator, wherein changing the knob's color enables the cook to manipulate the heat in order to obtain the best results in using waterless cookware.

U.S. Patent No. 2,710,274 to Kuehl discloses a multiplayer glass sheet or compound glass, as windowglass for windows, doors, sky-lights or like of buildings or of vehicles, wherein the transparency of said multi-layer glass sheet being reversibly variable with changes in luminous intensity and/or temperature.

U.S. Patent No. 4,891,250 to Weibe et al. discloses an electronic component temperature monitoring system for

monitoring the temperature of electrical and electronic components and integrated circuit, wherein a temperature indicating decalcomania attached to the electrical and/or electronic component to be monitored.

U.S. Patent No. 4,390,275 to Schilf et al. discloses an object carrier with a transparent plate of an opaque backing which carries a thin liquid crystal layer, wherein the average reflection of light by the crystal layer is used as a representation of its average temperature.

U.S. Patent No. 4,032,687 to Hornsby discloses an applique attachable by pressure sensitive adhesive or the like to a supporting surface, wherein the applique includes a base sheet, a layer of color changeable liquid crystalline material disposed upon the base sheet, and a transparent covering layer overlying the liquid crystalline layer, wherein the applique is removable for use as a novelty or a premium item and is color changeable by application of heat.

U.S. Patent No. 3,893,340 to Parker discloses a thermometer comprising a temperature indicator and a thermally coupled insulator for contacting the object the temperature of which is to be measured.

U.S. Patent No. 3,796,884 to Tricoire discloses a process for manufacturing a thermographic plate, wherein a sensitive

layer comprised of liquid crystals, associated to a heat guiding layer made of latex and producing a screen effect perpendicularly to said sensitive layer.

U.S. Patent No. 3,590,371 to Shaw discloses a circuit discontinuities in conductor members embedded in pieces of glass, such as windshields, detected by placing in operative association with the glass a stream of cholesteric-phase liquid-crystal material having appropriate color-change temperature-range characteristics.

U.S. Patent No. 1,692,012 to Wells discloses a device for indicating abnormal conditions in the operation of engines, machinery, and the like.

The Whirlpool built-in electric ceramic cooktops featured in the Whirlpool built-in cooking appliances catalogue printed in March of 1997 by Whirlpool Corporation, wherein the hot surface indicator light provides no visual association to a particular heating element.

The electric cooktop models 8670RV and 8770RB featured in the Magic Chef's "So Right At Home" catalogue published by Maytag Appliances in 1997, wherein the hot surface indicator light provides no visual association to a particular heating element.

The "Touch Top" cooktops featured in the Dacor's "A Touch of Glass" catalogue published by Dacor in January of 1997, wherein the hot surface indicators lights congregated together without visual association to a particular heating element.

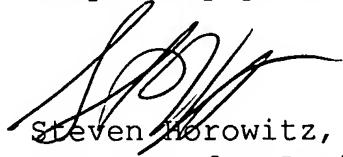
The Dacor electric convertible cooktops featured in the Dacor's "A reflection of good taste" catalogue published by Dacor in May of 1997, wherein the hot surface indicators lights congregated together without visual association to a particular heating element.

The GE built-in electric cooktop model GE Profile JP350BV featured in the GE's "Appliance Selection Guide" catalogue published by GE in the summer of 1997, wherein the hot surface indicators lights congregated together without visual association to a particular heating element.

None of the above items discloses a hot-button type heat alert device attachable to a surface, such as metal or glass, for warning individuals that the surface is hot, comprising a thermochromic composition, a button-shaped container for housing the composition, having a convex face, overlying said composition and the container being transparent in at least a portion of the container overlying the thermochromic composition, wherein the thermochromic composition is designed to undergo and maintain a readily perceptible color change whenever the temperature of the hot surface exceeds a

predetermined temperature and reveal a heat warning symbol underneath the thermochromic composition which communicates that the surface is dangerously hot, the heat warning symbol being substantially visible through the convex face of the container.

Very truly yours,



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Sheet 1 of 2  
10/646,174

## LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

LERNER

FILING DATE

08/21/2003

GROUP

3742

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA	61104007815100		LERNER	219	453	1/30/98
AB	6163911901028103		LERNER	219	445.1	2/21/01
AC	61700110032104		LERNER	219	446.1	9/10/02
AD	5499597319196		KRONGERE	116	216	1/31/95
AE	59979641217199		Klima	428	1	5/4/95
AF	3827301386774		Parker	73	356	9/18/72
AG	1692012112028		Wells			12/20/1924
AH	5441344815195		Cook	374	141	10/22/93
AI	514411291192		Wyatt et al.	219	386	9/9/91
AJ	4805188214/89		Parker	374	141	2/3/85
AK	370134410/31/70		Walls et al	126	388	8/24/70

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES
						NO
AL						
AM						

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Whirlpool Built-in electric ceramic cooktops, Whirlpool, 3/97 Magic Chef electric cooktop 8670RV 5 8770RB, Maytag, 1997
AS	Dacor's "Touch Top" cooktops, Dacor, 01/1997 Dacor electric convertible cooktops, Dacor, 05/1997

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

LIST OF PRIOR ART CITED BY APPLICANT  
(Use several sheets if necessary)

ATTY. DOCKET NO.

APPLICANT

FILING DATE

GROUP

08/21/2003

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA	4 89125011/20/90		WEIBE et al.	374	162	2/17/88
AB	2710274617/55		Kuehl			3/26/52
AC	4390275612/28/83		Schilf et al	356	43	12/18/80
AD	4032687612/28/77		HORNSBY	428	161	12/12/75
AE	37968843/12/74		TRICOIRE	250	316.1	10/18/71
AF	38933407/8/75		Parker	73	356	6/27/73
AG	35903716/29/71		Shaw	116	216	12/31/69
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AL							
AM							

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	GE Built-in electric cooktop Model GE Profile JP350BV, GE Summer 1997
AS	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



## CERTIFICATE OF MAILING

I hereby certify that on April 9, 2004, in connection with patent application no. 10/646,174 ENHANCED VISIBILITY HEAT ALERT SAFETY DEVICE FOR HOT SURFACES, I deposited: (i) 8 pages of **Information Disclosure Statement** (ii) form PTO-1449 (iii) copies of prior art references (iv) this Certificate of Mailing and (v) an Acknowledgement postcard

with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the address below:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

A handwritten signature in black ink, appearing to read "Steven Horowitz". It is written in a cursive style with a long, sweeping line extending from the left.

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Dated: April 9, 2004